

## Appendix E

### Preliminary CHART Assessment for the Southern California (SC) *O. mykiss* ESU

#### **ESU Description**

The SC *O. mykiss* ESU was listed as an endangered species in 1997 (62 FR 433937; August 18, 1997) and then re-evaluated and its range extended in 2002 (67 FR 21586; May 1, 2002). The SC *O. mykiss* ESU includes all naturally spawned populations of *O. mykiss* in coastal river basins from the Santa Maria River in San Luis Obispo County southward to the U.S. - Mexican Border (67 FR 21586). Major coastal watersheds occupied by naturally spawning fish in this ESU include the Santa Maria River, Santa Ynez River, Ventura River, and the Santa Clara River. Several smaller streams in Santa Barbara, Ventura and northern Los Angeles County also support naturally spawning *O. mykiss*, as do two watersheds (San Juan Creek and San Mateo Creek) in southern Orange County and northern San Diego County. These southernmost populations are disjunct in distribution and are separated from the northernmost populations by approximately 80 miles. Based on an updated status review (NMFS 2003a), NMFS recently proposed that the ESU remain listed as an endangered species (69 FR 33102; June 14, 2004). In addition, NMFS proposed that resident *O. mykiss* occurring with anadromous populations below impassable barriers (both natural and man made) also be included in the SC *O. mykiss* ESU. A Technical Recovery Team has been formed for the South-Central coast of California and is in the process of identifying the historical and extant independent population structure of this ESU (and the SCCC *O. mykiss* ESU), as well as the associated viability criteria for these populations.

#### **CHART Area Assessments**

The CHART assessment for the SC *O. mykiss* ESU addressed 37 occupied Hydrologic Subareas (HSAs) organized into 8 associated Hydrologic Units (HUs) or subbasins (Figures E1 and E2). The HSAs were chosen as freshwater critical habitat units because they provided a convenient and systematic way to organize the CHART's watershed assessments for this ESU. Information presented below for individual HUs or subbasins (size, counties, total stream miles, occupied stream miles, and habitat use) were generated from GIS data sets compiled by NMFS Southwest Region (NMFS 2004a).

#### Unit 1. Santa Maria River Subbasin (HU 3312)

The Santa Maria River HU is located in the northwestern portion of the ESU and includes the Santa Maria River watershed, including the Sisquoc and Cuyama tributaries upstream (see Map E1). The HU encompasses an area of approximately 704 mi<sup>2</sup> and occurs in Santa Barbara and San Luis Obispo Counties. The HU contains 3 HSAs, all of which are occupied, and approximately 1,079 stream miles within the portion of the HU that lies within the ESU (at 1:100,000 hydrography). Fish distribution and habitat use data compiled by NMFS biologists identify approximately 219 miles of occupied riverine and/or estuarine habitat in the 3 occupied HSAs (NMFS 2004a). The CHART concluded that these occupied HSAs contained one or more PCEs (i.e. spawning, rearing, or migratory habitat) and identified several management activities that may affect the PCEs. Table E1 summarizes the total miles of occupied riverine/estuarine habitat for each HSA watershed that contain spawning/rearing, rearing/migration, or migration PCEs, as well as management activities that may affect the PCEs in each HSA. Map E1 depicts the specific areas in this HU that are occupied by the ESU and under consideration for the critical habitat designation. The CHART did not identify any unoccupied areas in this subbasin that may be essential for the conservation of the ESU.

#### Unit 2. Santa Ynez Subbasin (HU 3314)

The Santa Ynez HU is located in the northwestern portion of the ESU and includes the Santa Ynez River watershed (see Map E2). The HU encompasses an area of approximately 485 mi<sup>2</sup> and occurs entirely in Santa Barbara County. The HU contains 6 HSAs, 5 of which are occupied, and approximately 720 stream miles within the portion of the HU that lies within the ESU (at 1:100,000 hydrography). Fish distribution and habitat use data compiled by NMFS biologists identify approximately 138 miles of occupied riverine and/or estuarine habitat in the 5 occupied HSAs (NMFS 2004a). The CHART concluded that these occupied HSAs contained one or more PCEs (i.e. spawning, rearing, or migratory habitat) and identified several management activities that may affect the PCEs. Table E1 summarizes the total miles of occupied riverine/estuarine habitat for each HSA watershed that contain spawning/rearing, rearing/migration, or migration PCEs, as well as management activities that may affect the PCEs in each HSA. Map E2 depicts the specific areas in this HU that are occupied by the ESU and under consideration for the critical habitat designation.

The CHART also concluded that inaccessible reaches of the Santa Ynez River and its tributaries above Bradbury Dam may be essential to the conservation of this ESU (NMFS 2004f). The team reached this conclusion because historical records indicate that the

upper portion of the Santa Ynez watershed above Bradbury Dam provided the principal spawning and rearing habitat for a historically large anadromous *O. mykiss* population within this river system prior to construction of the dam. Because of the large size of the Santa Ynez river system, it is likely to have historically supported one or more independent populations which contributed to the resiliency of the ESU and served as a buffer against extinction. The currently occupied habitat areas within the range of this ESU are relatively small in number and size, and in many cases are isolated from other occupied habitats, thus the re-establishment of larger populations such as the one that historically occurred in the Santa Ynez River may be necessary to reduce the extinction risk for this ESU.

#### Unit 3. South Coast Subbasin (HU 3315)

The South Coast HU is located in the northwestern portion of the ESU and includes several small streams including Arroyo Hondo, Mission Creek, and Carpinteria Creek (see Map E3). That portion of the HU within the ESU encompasses an area of approximately 375 mi<sup>2</sup> and occurs primarily in Santa Barbara County. The HU contains 5 HSAs, all of which are occupied, and approximately 620 stream miles within the portion of the HU that lies within the ESU (at 1:100,000 hydrography), although most of the stream miles are in one HSA. Fish distribution and habitat use data compiled by NMFS biologists identify approximately 152 miles of occupied riverine and/or estuarine habitat in the 5 occupied HSAs (NMFS 2004a). The CHART concluded that these occupied HSAs contained one or more PCEs (i.e. spawning, rearing, or migratory habitat) and identified several management activities that may affect the PCEs. Table E3 summarizes the total miles of occupied riverine/estuarine habitat for each HSA watershed that contain spawning/rearing, rearing/migration, or migration PCEs, as well as management activities that may affect the PCEs in each HSA. Map E3 depicts the specific areas in this HU that are occupied by the ESU and under consideration for the critical habitat designation. The CHART did not identify any unoccupied areas in this subbasin that may be essential for the conservation of the ESU.

#### Unit 4. Ventura River Subbasin (HU 4402)

The Ventura River HU is located in the northwestern portion of the ESU and includes the Ventura River and its associated tributaries. That portion of the HU within the ESU encompasses an area of approximately 162 mi<sup>2</sup> and occurs entirely in Ventura County. The HU contains 4 HSAs, all of which are occupied, and approximately 296 stream miles within the portion of the HU that lies within the ESU (at 1:100,000 hydrography). Fish

distribution and habitat use data compiled by NMFS biologists identify approximately 68 miles of occupied riverine and/or estuarine habitat in the 4 occupied HSAs (NMFS 2004a). The CHART concluded that these occupied HSAs contained one or more PCEs (i.e. spawning, rearing, or migratory habitat) and identified several management activities that may affect the PCEs. Table E1 summarizes the total miles of occupied riverine/estuarine habitat for each HSA watershed that contain spawning/rearing, rearing/migration, or migration PCEs, as well as management activities that may affect the PCEs in each HSA. Map E4 depicts the specific areas in this HU that are occupied by the ESU and under consideration for the critical habitat designation.

The CHART also concluded that inaccessible reaches of Matilija Creek and its tributaries above Matilija Dam and inaccessible reaches of Coyote and Santa Ana Creeks above Casitas Dam may be essential to the conservation of this ESU (NMFS 2004f). They reached this conclusion because historical records indicate that the inaccessible habitat reaches above Matilija and Casitas Dams provided the principal spawning and rearing habitat for a historically large anadromous *O. mykiss* population within the Ventura River watershed prior to construction of the dams. Because of the relatively large size of the Ventura River watershed, it is likely to have historically supported one or more independent populations prior to dam construction which contributed to the resiliency of the ESU and served as a buffer against extinction. The currently occupied habitat areas within the range of this ESU are relatively small in number and size, and in many cases are isolated from other occupied habitats, thus the re-establishment of larger populations such as the ones that historically occurred in the Ventura River watershed may be necessary to reduce the extinction risk of this ESU.

#### Unit 5. Santa Clara - Calleguas Subbasin (HU 4403)

The Santa Clara - Calleguas HU is located in the northwestern portion of the ESU and includes the Santa Clara River and its tributaries including Sespe Creek. That portion of the HU within the ESU encompasses a large area of approximately 1,236 mi<sup>2</sup> and occurs primarily in Ventura and Los Angeles Counties. The HU contains 14 HSAs, only 6 of which are occupied, and approximately 1,839 stream miles within the portion of the HU that lies within the ESU (at 1:100,000 hydrography). Fish distribution and habitat use data compiled by NMFS biologists identify approximately 182 miles of occupied riverine and/or estuarine habitat in the 6 occupied HSAs (NMFS 2004a). The CHART concluded that these occupied HSAs contained one or more PCEs (i.e. spawning, rearing, or migratory habitat) and identified several management activities that may affect the PCEs.

Table E1 summarizes the total miles of occupied riverine/estuarine habitat for each HSA watershed that contain spawning/rearing, rearing/migration, or migration PCEs, as well as management activities that may affect the PCEs in each HSA. Map E5 depicts the specific areas in this HU that are occupied by the ESU and under consideration for the critical habitat designation

The CHART also concluded that inaccessible reaches of Piru Creek and its tributaries above Santa Felicia Dam may be essential to the conservation of this ESU (NMFS 2004f). The team reached this conclusion because historical records indicate that the inaccessible habitat reaches above Santa Felicia Dam provided the principal spawning and rearing habitat for a historically large anadromous *O. mykiss* population within the Santa Clara River watershed prior to construction of the dam. Because of the large size of the Santa Clara River watershed, it is likely to have historically supported one or more independent populations prior to dam construction which contributed to the resiliency of the ESU and served as a buffer against its extinction. The currently occupied habitat areas within the range of this ESU are relatively small in number and size, and in many cases are isolated from other occupied habitats, thus the re-establishment of larger populations such as the one that historically occurred in the Santa Clara River watershed may be necessary to reduce the extinction probability of this ESU.

#### Unit 6. Santa Monica Bay Subbasin (HU 4404)

The Santa Monica Bay HU is located in the northwestern portion of the ESU and includes Topanga Creek, Malibu Creek, and Arroyo Sequit. That portion of the HU within the ESU encompasses a large area of approximately 328 mi<sup>2</sup> and occurs primarily in Los Angeles County. The HU contains 29 HSAs, only 3 of which are occupied, and approximately 222 stream miles within the portion of the HU that lies within the ESU (at 1:100,000 hydrography). Fish distribution and habitat use data compiled by NMFS biologists identify only approximately 11 miles of occupied riverine and/or estuarine habitat in the occupied HSAs (NMFS 2004a). The CHART concluded that these occupied HSAs contained one or more PCEs (i.e. spawning, rearing, or migratory habitat) and identified several management activities that may affect the PCEs. Table E1 summarizes the total miles of occupied riverine/estuarine habitat for each HSA watershed that contain spawning/rearing, rearing/migration, or migration PCEs, as well as management activities that may affect the PCEs in each HSA. Map E6 depicts the specific areas in this HU that are occupied by the ESU and under consideration for the critical habitat designation.

The CHART also concluded that inaccessible reaches of Malibu Creek above Rindge Dam may be essential to the conservation of this ESU. The team reached this conclusion because historical records indicate that the inaccessible habitat reaches above Rindge Dam provided the principal spawning and rearing habitat for an important anadromous *O. mykiss* population within the Malibu River watershed prior to construction of the dam. Because of the size of this watershed, it is likely to have historically supported an independent population prior to dam construction which contributed to the resiliency of the ESU and served as a buffer against its extinction. The currently occupied habitat areas within the range of this ESU are relatively small in number and size, and in many cases are isolated from other occupied habitats, thus the re-establishment of larger populations such as the one that historically occurred in Malibu Creek may be necessary to reduce the extinction risk of this ESU.

#### Unit 7. Calleguas Subbasin (HU 4408)

The Calleguas HU is located in the northwestern portion of the ESU and includes Calleguas Creek and estuary. That portion of the HU within the ESU encompasses a large area of approximately 344 mi<sup>2</sup> and occurs primarily in Ventura County. The HU contains 12 HSAs, only 2 of which are occupied, and approximately 463 stream miles within the portion of the HU that lies within the ESU (at 1:100,000 hydrography). Fish distribution and habitat use data compiled by NMFS biologists identify only approximately 1 mile of occupied estuarine habitat in one of occupied HSAs (NMFS 2004a). Mugu Lagoon, which constitutes the other occupied HSA, is also utilized by the ESU. The CHART concluded that the occupied HSAs contained one or more PCEs (i.e. spawning, rearing, or migratory habitat) and identified several management activities that may affect the PCEs. Table E1 summarizes the total miles of occupied estuarine habitat for each HSA watershed that contain spawning/rearing, rearing/migration, or migration PCEs, as well as management activities that may affect the PCEs in each HSA. Map E7 depicts the specific areas in this HU that are occupied by the ESU and under consideration for the critical habitat designation.

#### Unit 8. San Juan Subbasin (HU 4901)

The San Juan HU is located in the southern portion of the ESU and includes the San Juan Creek and San Mateo Creek watersheds which have recently been recolonized by *O. mykiss* (see Map E8). That portion of the HU within the ESU encompasses an area of approximately 496 mi<sup>2</sup> and occurs primarily in portions of Orange, Riverside, and Orange Counties. The HU contains 18 HSAs, 9 of which are occupied, and

approximately 743 stream miles within the portion of the HU that lies within the ESU (at 1:100,000 hydrography). Fish distribution and habitat use data compiled by NMFS biologists identify only approximately 66 miles of occupied riverine and/or estuarine habitat in the occupied HSAs (NMFS 2004a). The CHART concluded that the occupied HSAs contained one or more PCEs (i.e. spawning, rearing, or migratory habitat) and identified several management activities that may affect the PCEs. Table E1 summarizes the total miles of occupied estuarine habitat for each HSA watershed that contain spawning/rearing, rearing/migration, or migration PCEs, as well as management activities that may affect the PCEs in each HSA. Map E8 depicts the specific areas in this HU that are occupied by the ESU and under consideration for the critical habitat designation.

Within the range of the SC O. mykiss ESU, which extends from the Santa Maria River southward to the U.S.- Mexico border, there are a large number of HSA watersheds and their associated subbasins (or HUs) that are not occupied. These unoccupied subbasins include the San Gabriel River, Los Angeles River, Santa Ana River, Santa Margarita River, San Luis Rey River, San Dieguito River, San Diego River, Sweetwater River, Otay River and Tijuana River. Because these areas are unoccupied and were not considered essential for conservation of the ESU by the team, they were not considered further in the designation process.

### **CHART Preliminary Conservation Value Rating**

#### *Freshwater Areas*

After reviewing the best available scientific data regarding critical habitat for this ESU, the CHART concluded that most of the occupied HSAs were of high or medium conservation value to the ESU. Of the 37 occupied HSAs that were evaluated, 25 were rated as having high conservation value, 6 were rated as having medium conservation value, and 6 were rated as having low conservation value. Table E2 summarizes the CHARTs PCE/watershed scores and preliminary conservation value ratings (i.e. low, medium or high). Figure E9 shows the overall spatial distribution of conservation ratings by HSA watershed for the ESU.

#### *Marine Areas*

NMFS determined that marine areas did not warrant consideration as critical habitat for this ESU.

## **References and Sources of Information**

NMFS 2003a. Updated Status of Federally Listed ESUs of West Coast Salmon and Steelhead. West Coast Salmon Biological Review Team; Northwest Fisheries Science Center and Southwest Fisheries Science Center. July 2003.

NMFS 2004a. GIS and Associated Data Related to Critical Habitat Designations for Seven ESUs of Salmon and *O. mykiss* in California. Compiled by NMFS, Southwest Region.

## **Federal Register Notices**

62 FR 43937 - Southern California Steelhead Listing Determination (1997)

67 FR 21586 - SC Steelhead Range Extension (2002)

69 FR 33102 - Proposed Listing Determinations for 27 West Coast Salmon and Steelhead ESUs (June 2004)



**Table E1.** Summary of Occupied Watersheds, PCE's and Management Activities in the Southern California Steelhead ESU

Map Code	Basin	Watershed	CalWater Unit (HSA)	Spawning/Rearing PCEs (mi)**	Rearing/Migration PCEs (mi)**	Presence/Migration Only PCEs (mi)**	Management Activities***
	Santa Maria	Santa Maria	331210		26	26	D, I
	Santa Maria	Sisquoc	331220	175	186	186	S, G, H
	Santa Maria	Cuyama	331230	3	7	7	D
	Santa Ynez	Mouth of Santa Ynez	331410	2	18	18	D
	Santa Ynez	Santa Ynez, Salsipuedes	331420	20	36	36	G, I, R
	Santa Ynez	Santa Ynez, Zaca	331430	13	33	33	G, U, B
	Santa Ynez	Santa Ynez to Bradbury	331440	28	50	50	G, B, D
	Santa Ynez	Hilton	331451				R, B
	South Coast	Arroyo Hondo	331510	60	61	61	A, B
	South Coast	UCSB Slough	331531	35	38	38	B, U, A, W
	South Coast	Mission	331532	15	17	17	U, B, I
	South Coast	San Ysidro	331533	13	13	13	U, B, R
	South Coast	Carpinteria	331534	23	24	24	R, A, B
	Ventura River	Ventura	440210	6	18	18	D, O, U, A, X
	Ventura River	Ventura	440220	19	22	22	I, A, U, X, D
	Ventura River	Lions	440231	5	5	5	A, U, B, X
	Ventura River	Thatcher	440232	23	23	23	B, I, A
	Santa Clara-Calleguas	Mouth of Santa Clara	440310		8	8	I, A, U
	Santa Clara-Calleguas	Santa Clara, Santa Paula	440321	13	19	19	D, I, A, U, B
	Santa Clara-Calleguas	Sisar	440322	5	5	5	B

Santa Clara-Calleguas	Sespe, Santa Clara	440331	20	22	22	I, D
Santa Clara-Calleguas	Sespe	440332	111	113	101	X, F
Santa Clara-Calleguas	Santa Clara, Hopper Canyon, Piru	440341	16	16	16	D
Santa Monica Bay	Topanga	440411	4	4	1	R, U
Santa Monica Bay	Malibu	440421	3	3	1	U, D
Santa Monica Bay	Arroyo Sequit	440444	3	4	1	R, B, C
Calleguas	Callegus	440811		1	1	A, C
Calleguas	Callegus estuary	440813				A, U
San Juan	Trabuco	490121				U, B
San Juan	Upper Trabuco	490122	8	8	8	
San Juan	Middle Trabuco	490123	13	13	13	R, U'
San Juan	Middle San Juan	490124				R, U, B, C
San Juan	Upper San Juan	490125	13	13	13	U
San Juan	Mid-upper San Juan	490126	4	4	4	U
San Juan	Lower San Juan	490127	3	5	5	R, U, B
San Juan	Middle San Juan	490128	3	3	3	R, B, C
San Juan	San Mateo	490140	20	21	21	X, I, A

\*Total Stream Miles calculated from blue-line streams represented on 1:100,000 USGS Topographic Maps

\*\*Overlap of stream miles may occur between the three habitat types

\*\*\*Management Activities Codes:

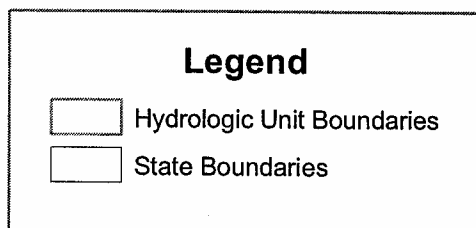
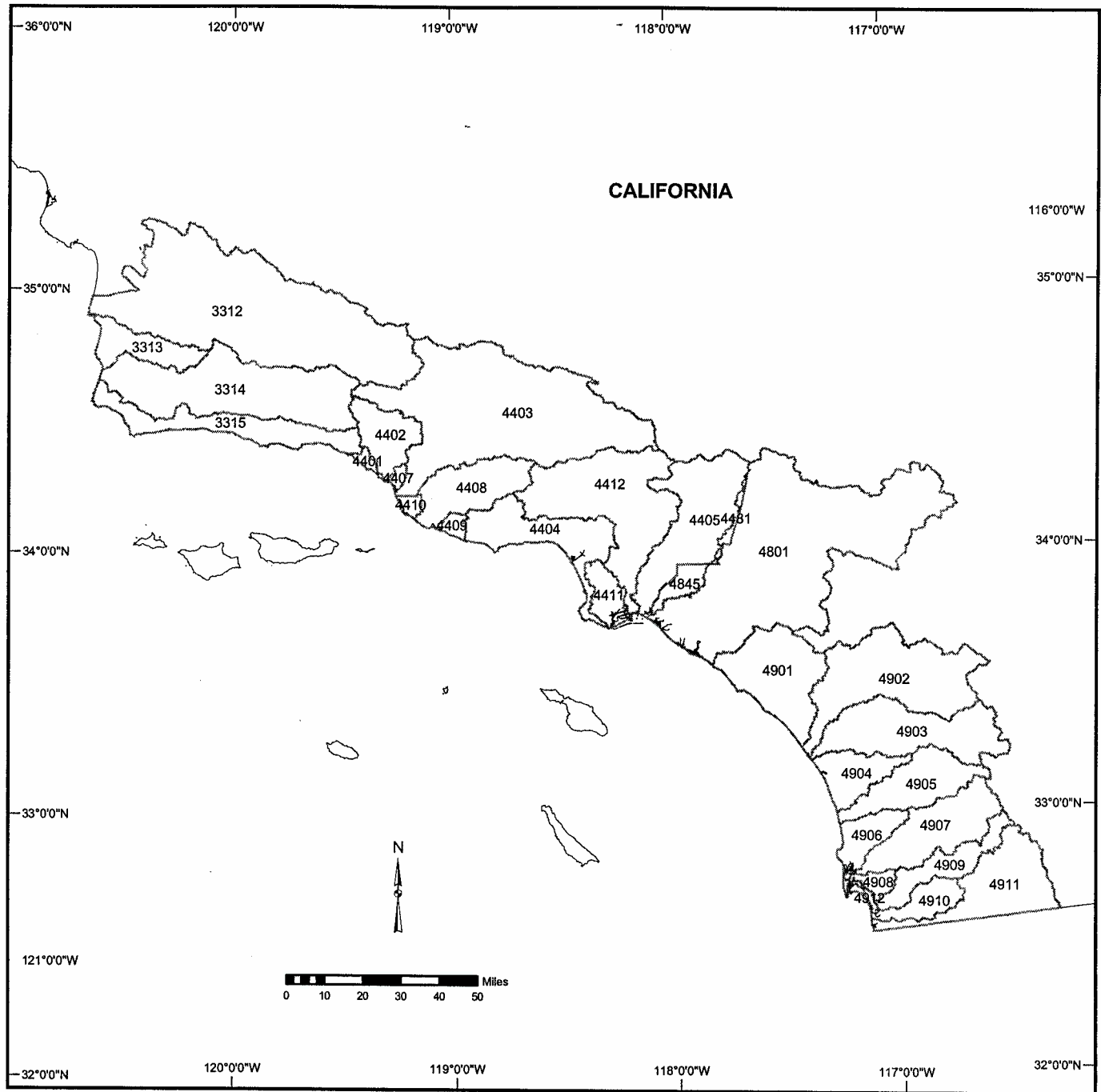
A = Agriculture	G = Grazing	R = Roads
B = Barriers / impediments	H = Species harvest and/or hatchery stocking	S = Sand and gravel mining
C = Channel modifications / flood control structures	I = Irrigation / water diversions and withdrawals	U = Urbanization / development
D = Large water storage dams	M = Mineral mining	W = Wetland loss
F = Forest management and activities	O = Oil and gas development	X = Exotic/invasive species introduction

**Table E2. Summary of Preliminary Scores and Overall Rankings of Conservation Values for Critical Habitat for HSA watersheds occupied by the Southern California Steelhead ESU**

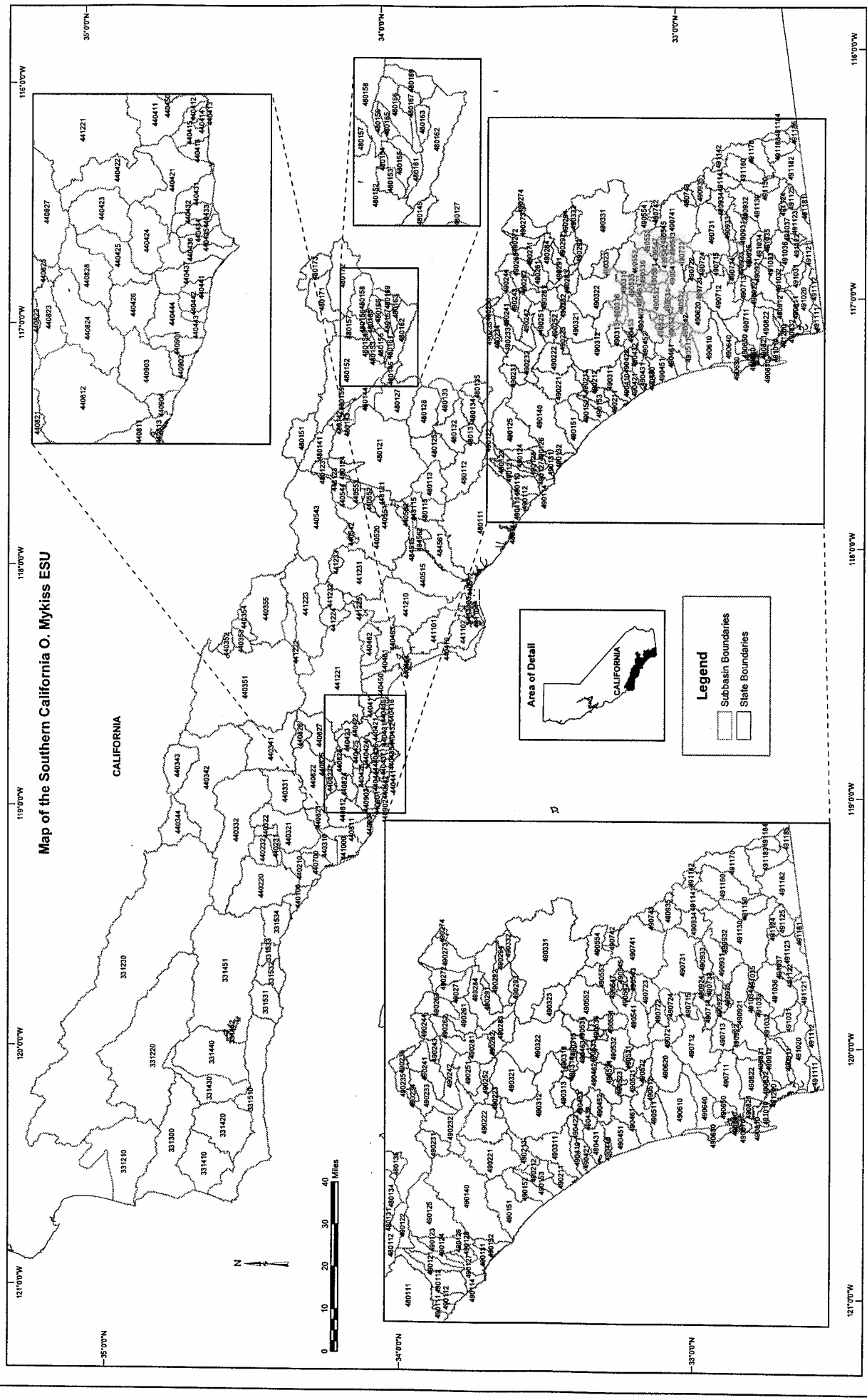
Map Code	Basin	Watershed	Calwater Unit	Total Score (0-18)	Comments / Other Considerations	Preliminary Conservation Value
	Santa Maria	Santa Maria	331210 ~	6		Low
	Santa Maria	Sisquoc	331220	11		High
	Santa Maria	Cuyama	331230	7		Low
	Santa Ynez	Mouth of Santa Ynez	331410	11		High
	Santa Ynez	Santa Ynez, Salsipuedes	331420	11		High
	Santa Ynez	Santa Ynez, Zaca	331430	7		Low
	Santa Ynez	Santa Ynez to Bradbury	331440	10		Medium
	Santa Ynez	Hilton	331451	8		Medium
	South Coast	Arroyo Hondo	331510	11		High
	South Coast	UCSB Slough	331531	11		High
	South Coast	Mission	331532	12		High
	South Coast	San Ysidro	331533	11		High
	South Coast	Carpinteria	331534	11		High
	Ventura River	Ventura	440210	12		High
	Ventura River	Ventura	440220	12		High
	Ventura River	Lions	440231	9		Medium
	Ventura River	Thatcher	440232	9		Medium
	Santa Clara-Calleguas	Mouth of Santa Clara	440310	10		Medium
	Santa Clara-Calleguas	Santa Clara, Santa Paula	440321	11		High
	Santa Clara-Calleguas	Sisar	440322	12		High
	Santa Clara-Calleguas	Sespe, Santa Clara	440331	12		High
	Santa Clara-Calleguas	Sespe	440332	13		High
	Santa Clara-Calleguas	Santa Clara, Hopper Canyon, Piru	440341	11		High
	Santa Monica Bay	Topanga	440411	11		High
	Santa Monica Bay	Malibu	440421	13		High
	Santa Monica Bay	Arroyo Sequit	440444	12		High
	Calleguas	Callegus	440811	3		Low
	Calleguas	Callegus estuary	440813	4		Low
	San Juan	Trabuco	490121	6		Low
	San Juan	Upper Trabuco	490122	11		High
	San Juan	Middle Trabuco	490123	11		High
	San Juan	Middle San Juan	490124	8		Medium
	San Juan	Upper San Juan	490125	11		High
	San Juan	Mid-upper San Juan	490126	11		High
	San Juan	Lower San Juan	490127	11		High
	San Juan	Middle San Juan	490128	11		High
	San Juan	San Mateo	490140	12		High

Figures E1 and E2: CALWATER Hydrologic Units and Hydrologic Subareas within the Range of the Southern California *O. mykiss* ESU

# Map of the Southern California O. Mykiss ESU



Map of the Southern California O. Mykiss ESU



Maps E1 through E8: Southern California *O. mykiss* ESU - Areas (Units) Under  
Consideration for Critical Habitat Designation

E1 - Unit 3312 (Santa Maria River HU)

E2 - Unit 3314 (Santa Ynez HU)

E3 - Unit 3315 (South Coast HU)

E4 - Unit 4402 (Ventura River HU)

E5 - Unit 4403 (Santa Clara-Calleguas HU)

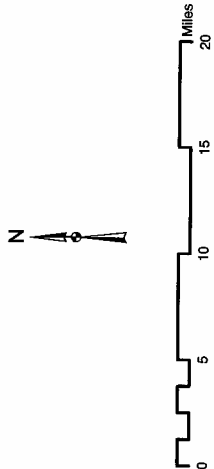
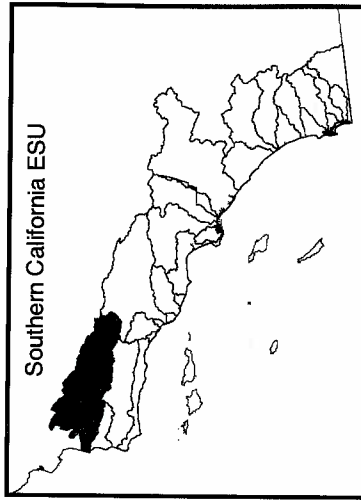
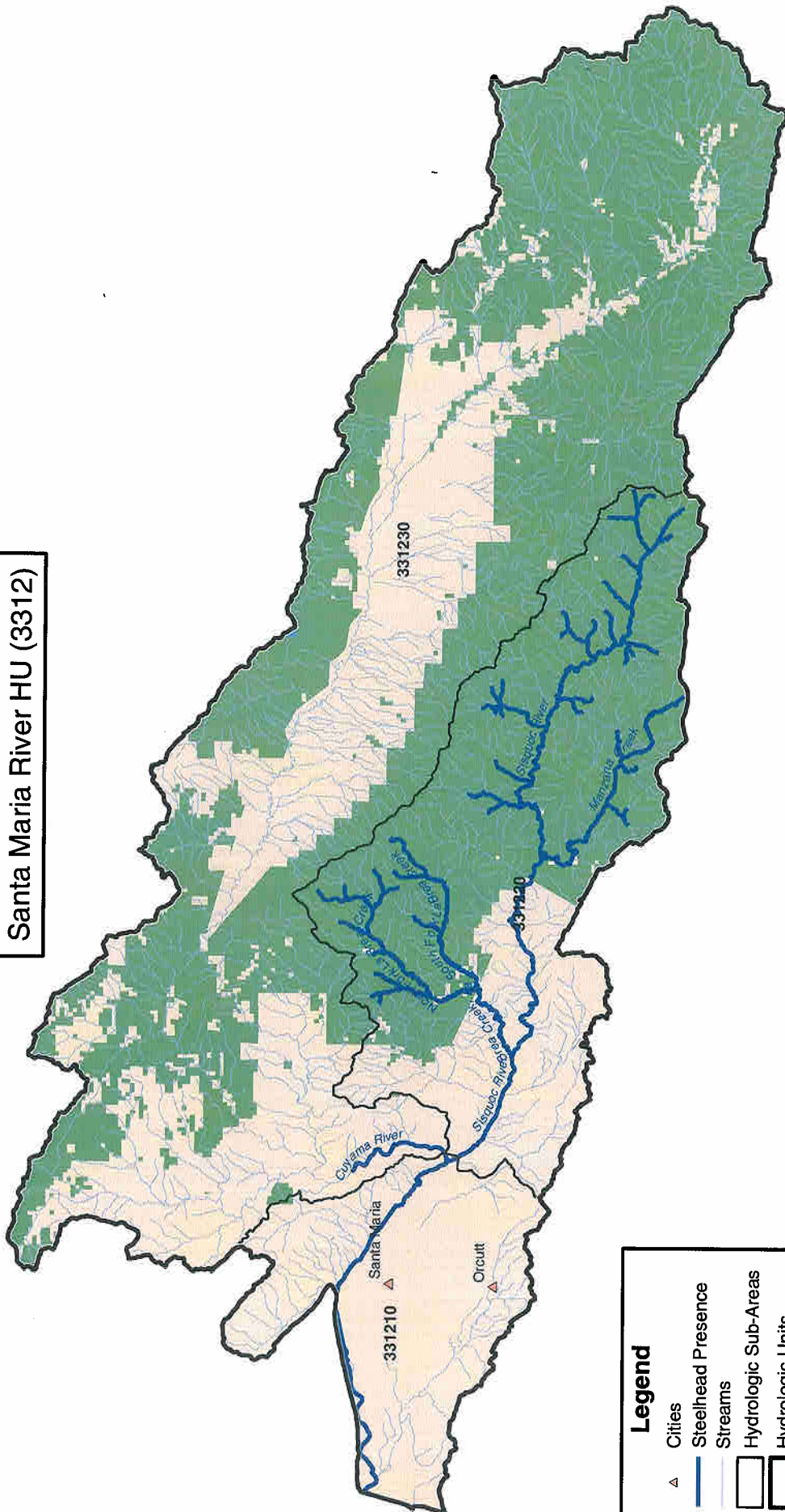
E6 - Unit 4404 (Santa Monica Bay HU)

E7 - Unit 4408 (Calleguas HU)

E8 - Unit 4901 (San Juan HU)



**DRAFT**  
**Southern California Steelhead**  
**Santa Maria River HU (3312)**



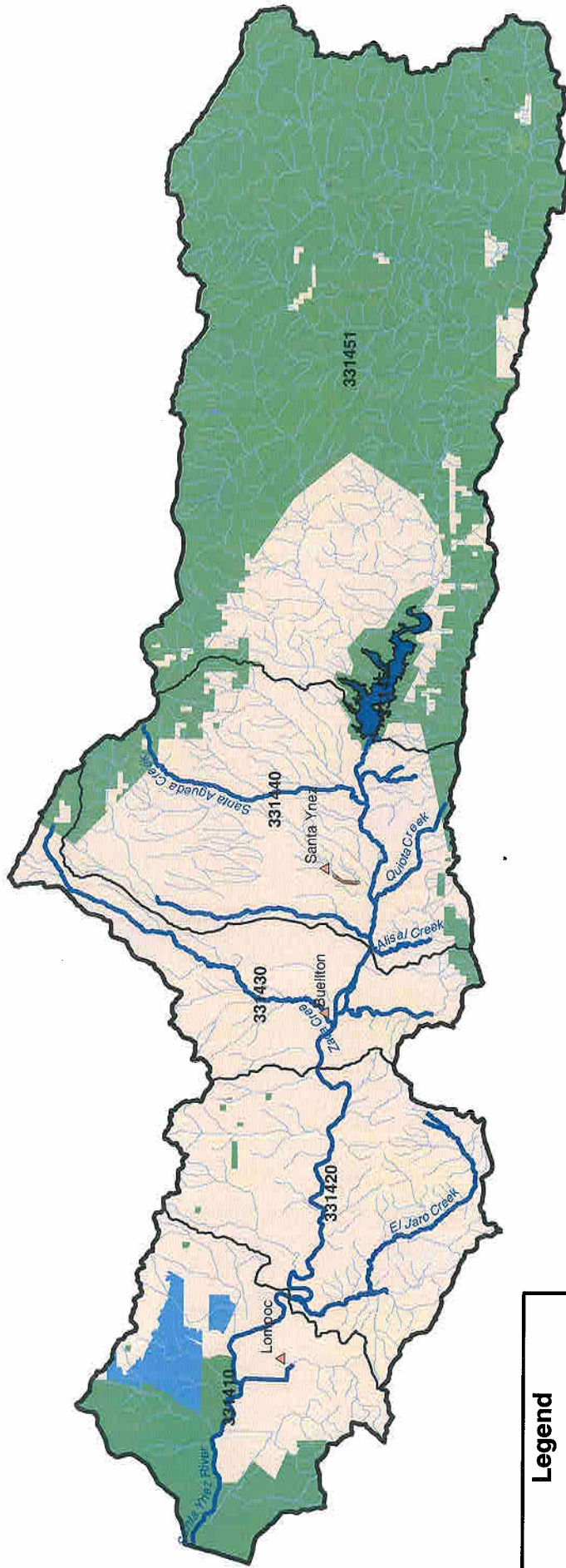
- Legend**
- △ Cities
  - Steelhead Presence
  - Streams
  - Hydrologic Sub-Areas
  - ◻ Hydrologic Units
- Land Ownership**
- Tribal
  - Federal
  - State/Local
  - Private/Other
  - Water

Source: CA Environmental Resources Evaluation System (CERES), 1999  
Projection: Teale-Albers  
Scale: 1:550,000

**Note: This map is a DRAFT product for general reference only**



**DRAFT**  
**Southern California Steelhead**  
**Santa Ynez HU (3314)**



**Legend**

- △ Cities
- Steelhead Presence
- Streams
- Hydrologic Sub-Areas
- Hydrologic Units

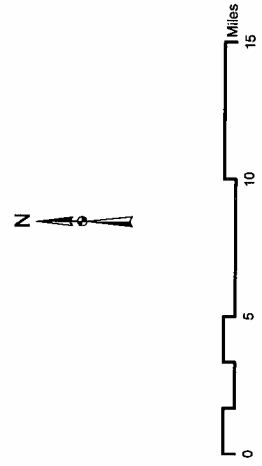
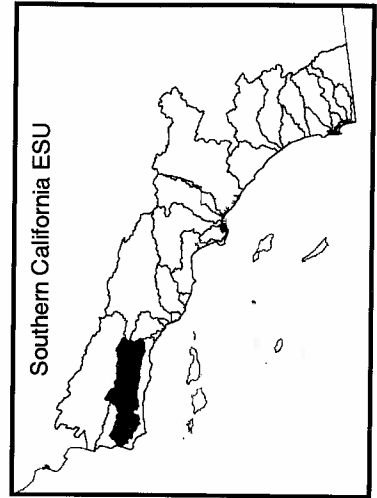
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- Tribal
- Federal
- State/Local
- Private/Other
- Water

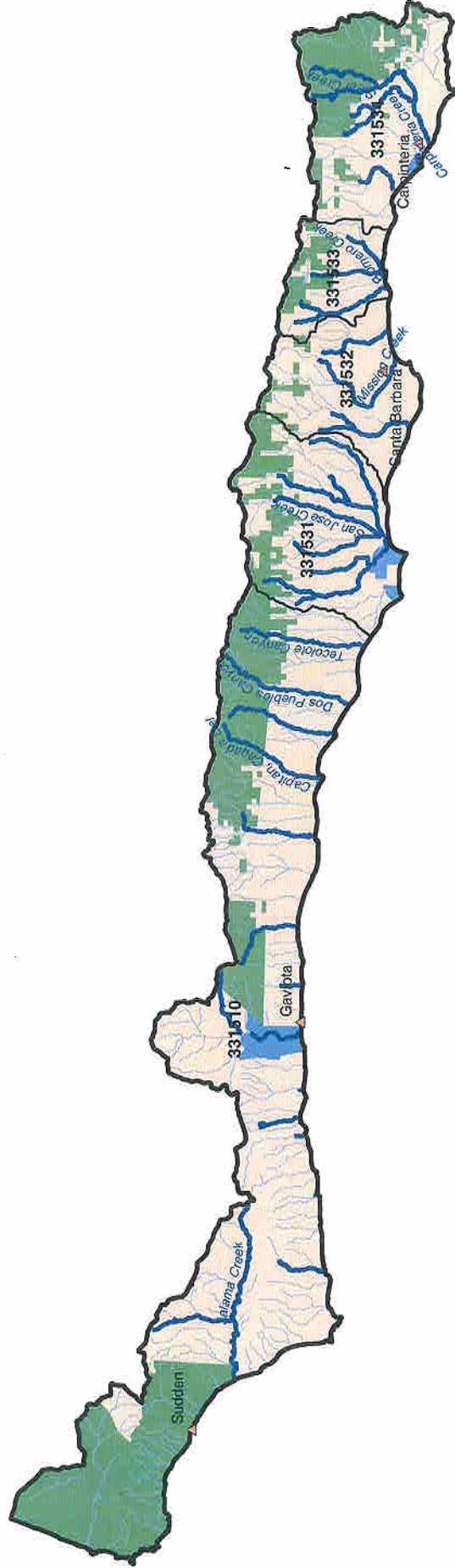
Source: CA Environmental Resources Evaluation System (CERES), 1999

Projection: Teale-Albers  
Scale: 1:425,000

**Note:** This map is a DRAFT product for general reference only



**DRAFT**  
**Southern California Steelhead**  
**South Coast HU (3315)**



**Legend**

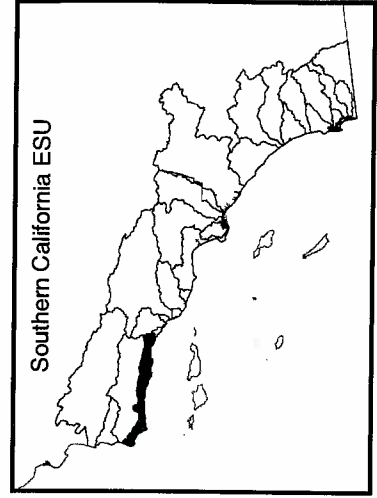
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- Steelhead Presence
- Streams
- Hydrologic Sub-Areas
- Hydrologic Units

**Land Ownership**

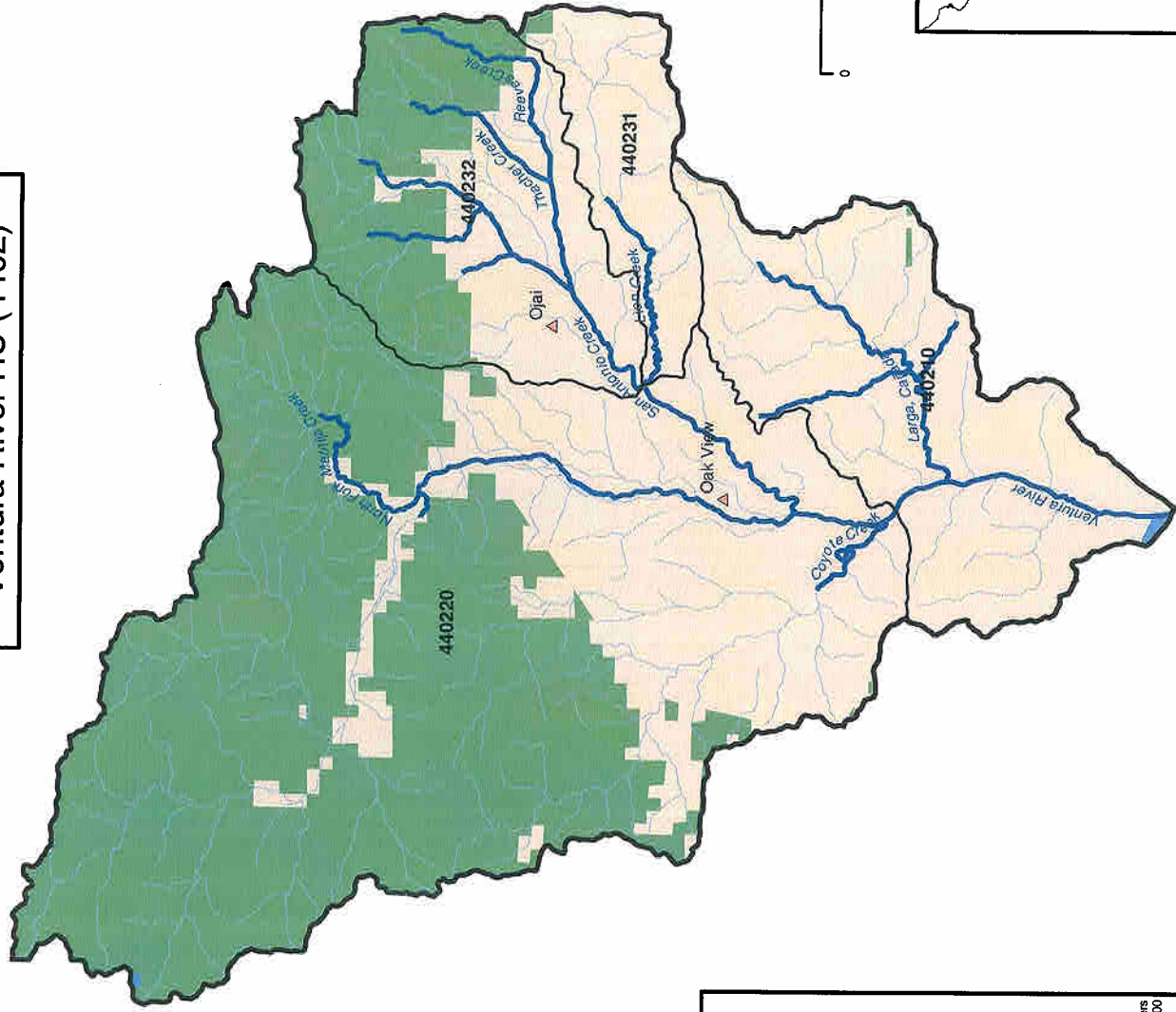
- Tribal
- Federal
- State/Local
- Private/Other
- Water

Source: CA Environmental Resources Evaluation System (CERES), 1989  
 Projection: Teale-Albers  
 Scale: 1:450,000

**Note:** This map is a DRAFT product for general reference only



**DRAFT**  
**Southern California Steelhead**  
**Ventura River HU (4402)**



**Legend**

- △ Cities
- Steelhead Presence
- Streams
- Hydrologic Sub-Areas
- Hydrologic Units

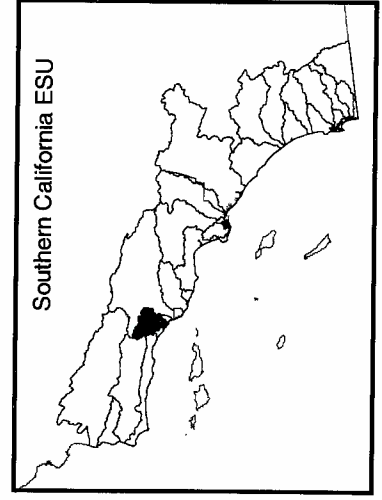
**Land Ownership**

- Tribal
- Federal
- State/Local
- Private/Other
- Water

Source: CA Environmental Resources Evaluation System (CERES), 1999

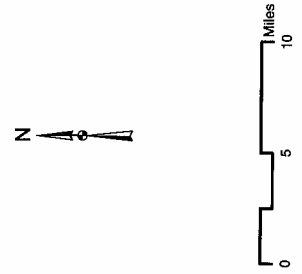
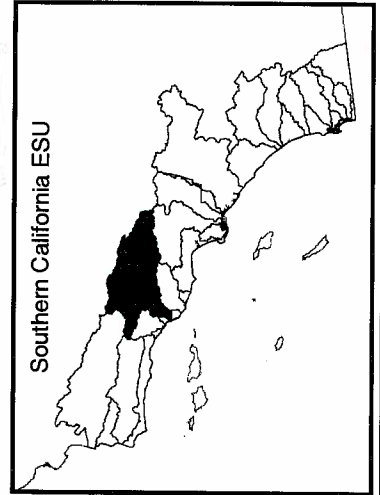
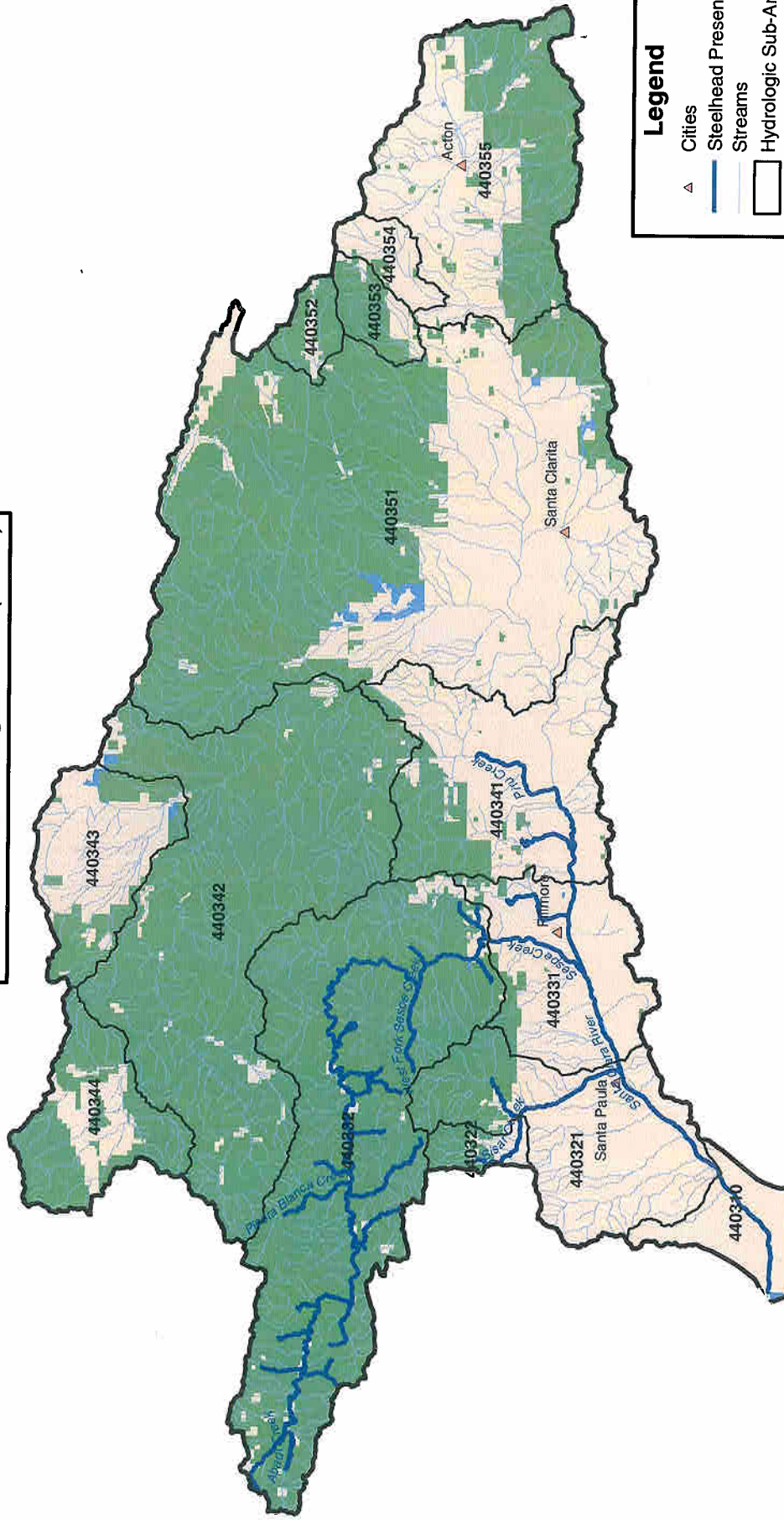
Projection: Teale-Albers  
Scale: 1:215,000

**Note:** This map is a DRAFT product for general reference only





**DRAFT**  
**Southern California Steelhead**  
**Santa Clara-Calleguas HU (4403)**



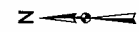
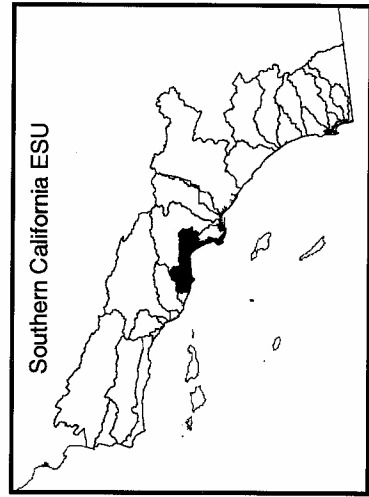
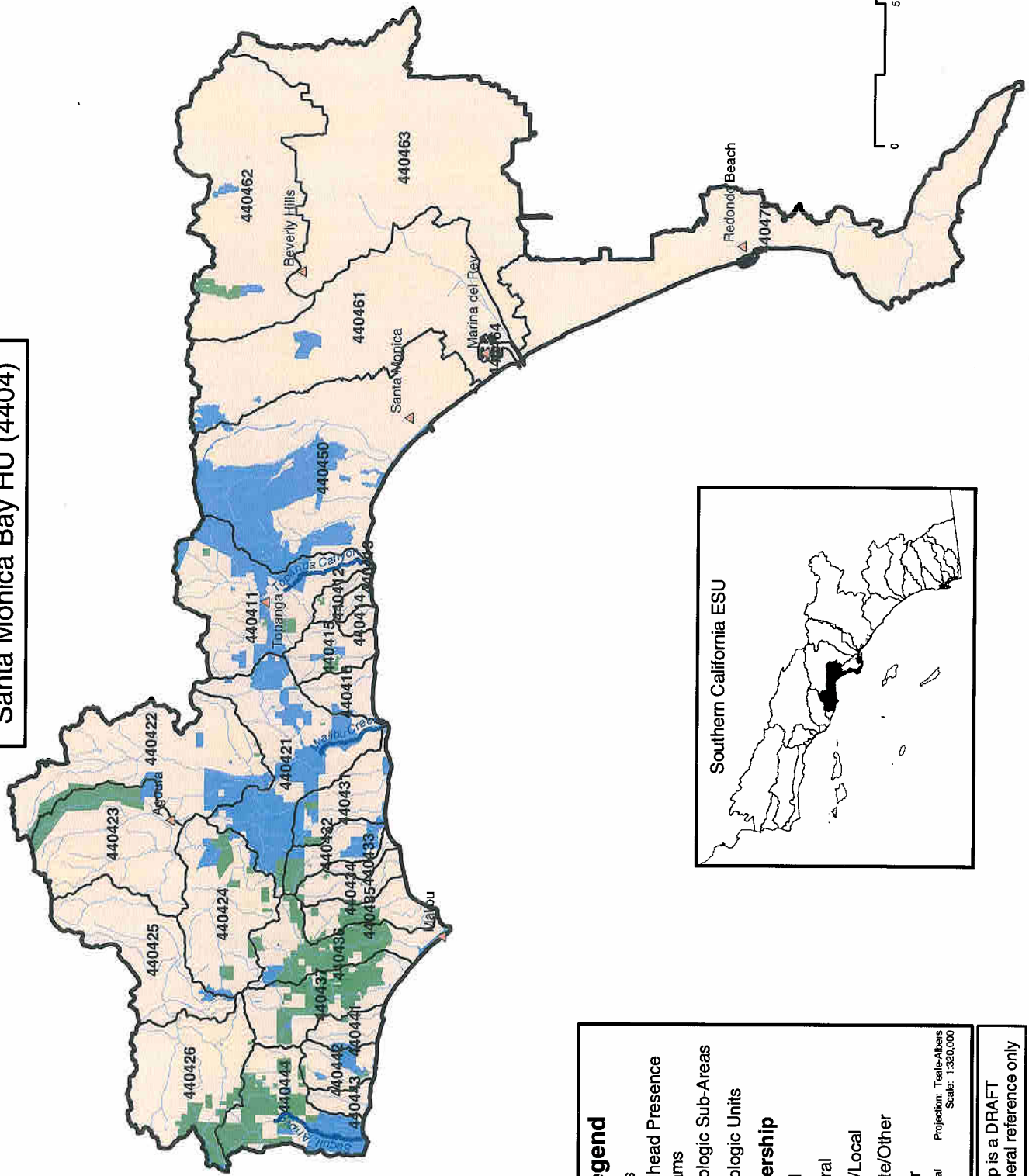
**Legend**

- Cities
  - Steelhead Presence
  - Streams
- Hydrologic Sub-Areas
- Hydrologic Units
- Land Ownership**
  - Tribal
  - Federal
  - State/Local
  - Private/Other
  - Water

Source: CA Environmental Resources Evaluation System (CERES), 1999  
 Projection: Teale-Albers  
 Scale: 1:525,000

**Note: This map is a DRAFT product for general reference only**

**DRAFT**  
**Southern California Steelhead**  
**Santa Monica Bay HU (4404)**



**Legend**

- Cities
- Steelhead Presence
- Streams
- Hydrologic Sub-Areas
- Hydrologic Units

**Land Ownership**

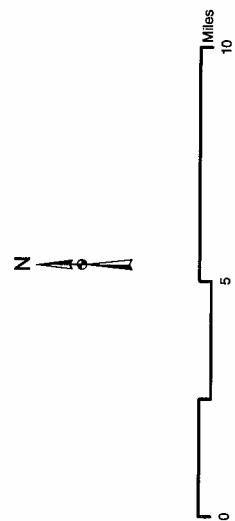
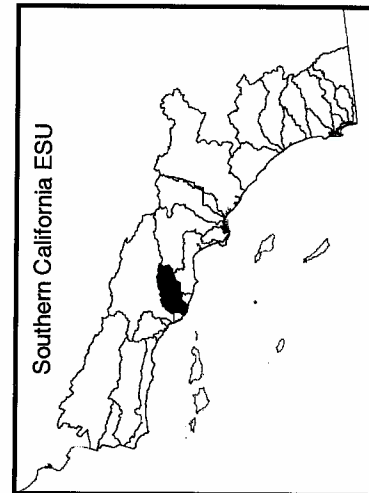
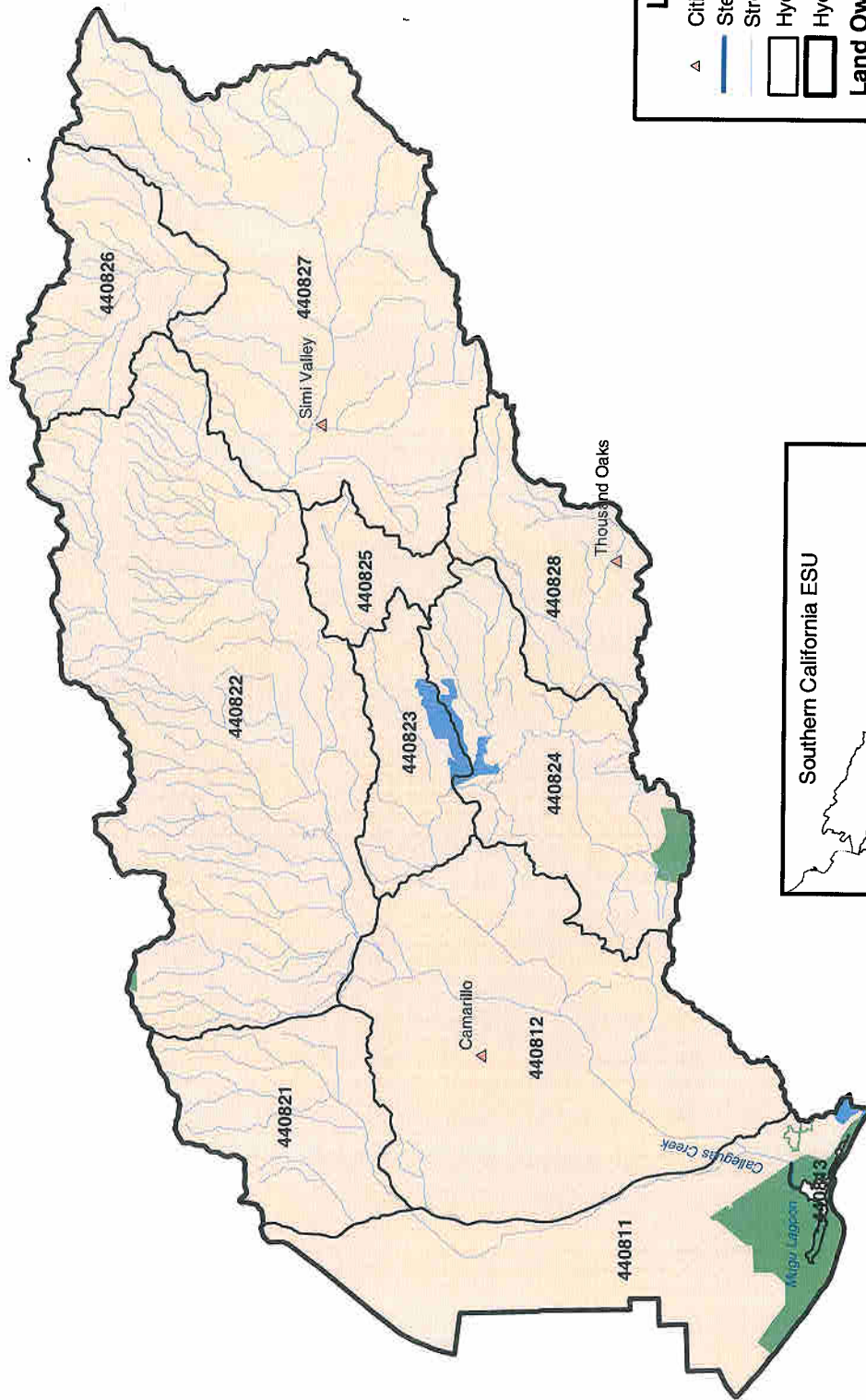
- Tribal
- Federal
- State/Local
- Private/Other
- Water

Source: CA Environmental Resources Evaluation System (CERES), 1999

Projection: Traile-Albers  
Scale: 1:320,000

Note: This map is a DRAFT product for general reference only

**DRAFT**  
**Southern California Steelhead**  
**Calleguas HU (4408)**



**Legend**

- Cities
- Steelhead Presence
- Streams
- Hydrologic Sub-Areas
- Hydrologic Units

**Land Ownership**

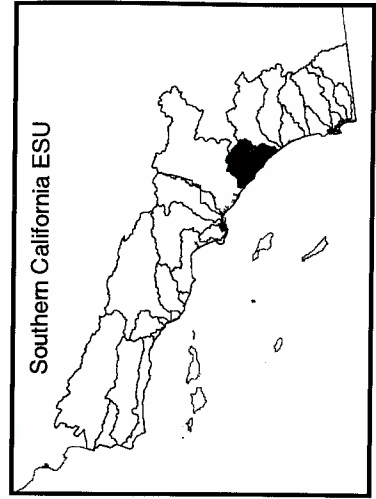
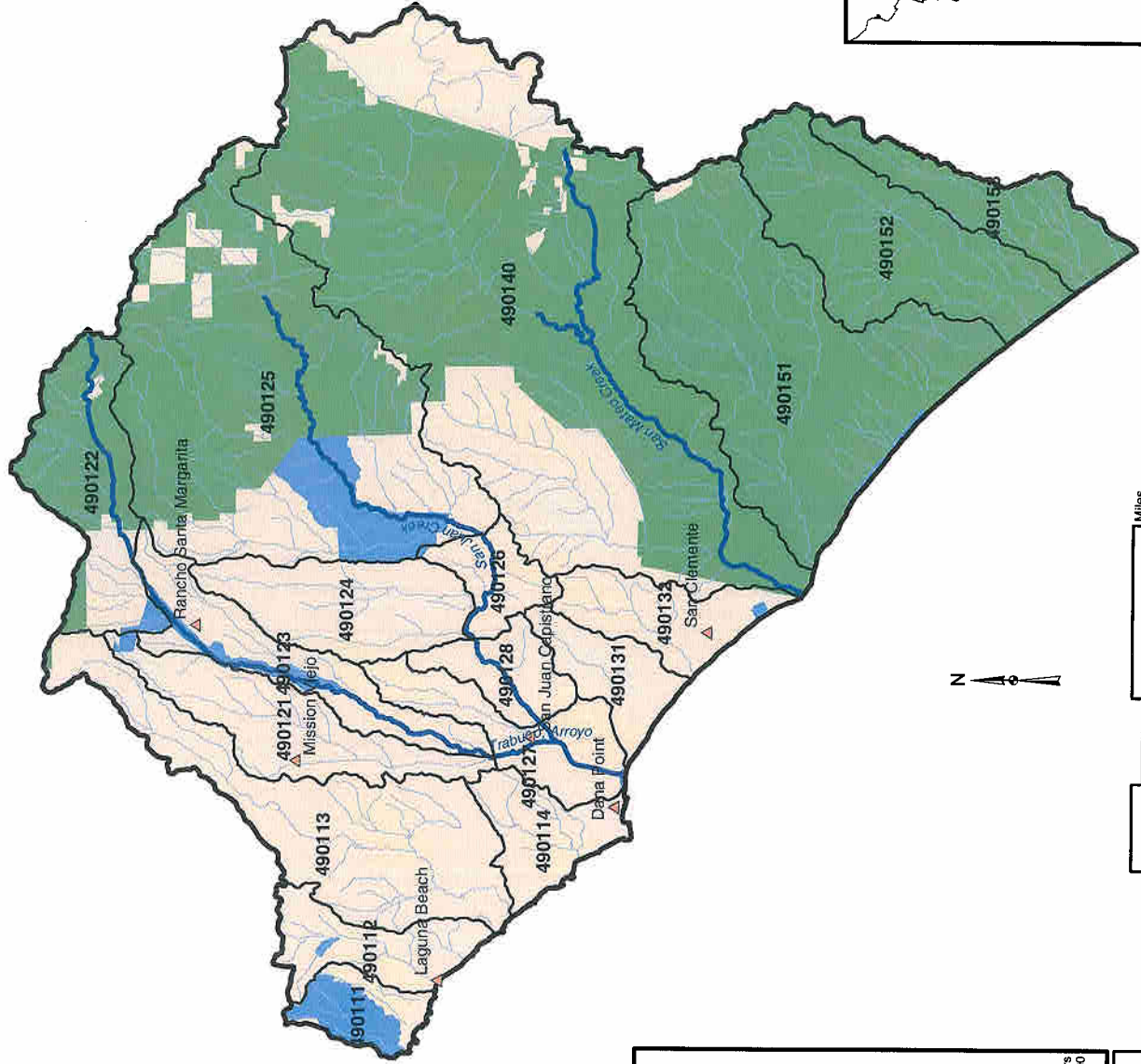
- Tribal
- Federal
- State/Local
- Private/Other
- Water

Source: CA Environmental Resources Evaluation System (CERES), 1999  
 Projection: Teale-Albers  
 Scale: 1:250,000

**Note: This map is a DRAFT product for general reference only**



# **DRAFT** **Southern California Steelhead** **San Juan HU (4901)**



**Legend**

- △ Cities
- Steelhead Presence
- Streams
- Hydrologic Sub-Areas
- Hydrologic Units

**Land Ownership**

- Tribal
- Federal
- State/Local
- Private/Other
- Water

Source: CA Environmental Resources Evaluation System (CARES), 1999

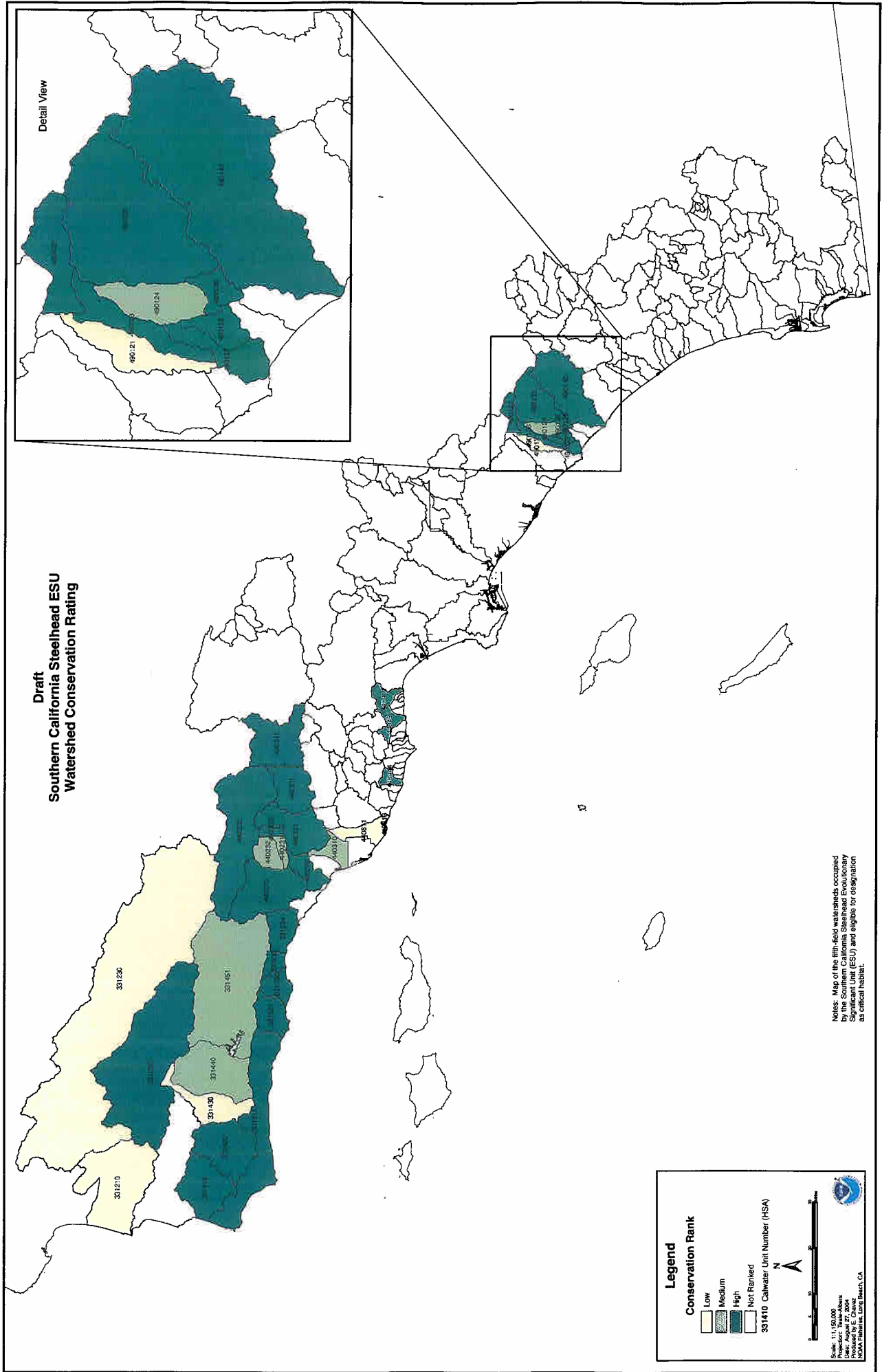
Projection: Teale-Albers  
Scale: 1:315,000

Note: This map is a DRAFT product for general reference only

Map E9. Preliminary CHART Ratings of Conservation Value for CALWATER HSA  
Watersheds occupied by the Southern California *O. mykiss* ESU



# **Draft** **Southern California Steelhead ESU** **Watershed Conservation Rating**



Notes: Map of the five field watersheds occupied by the Southern California Steelhead Evolutionarily Significant Unit (ESU) and eligible for designation as critical habitat.